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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/910,952	07/24/2001	Duck Chul Hwang	1567.1015/MDS/JGM	3638
21171	7590	02/02/2004	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			WEINER, LAURA S	
			ART UNIT	PAPER NUMBER
			1745	

DATE MAILED: 02/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/910,952

Applicant(s)

HWANG ET AL.

Examiner

Laura S Weiner

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 9-8-03;10-2-03;12-8-03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 2-30 is/are pending in the application.
- 4a) Of the above claim(s) 3,5-7,15,18-28 and 30 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10 is/are allowed.
- 6) ☒ Claim(s) 2,4,8,9,11-14 and 29 is/are rejected.
- 7) ☒ Claim(s) 16 and 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Response to Amendment***

2. Examiner acknowledges the cancellation of claim 1 and addition of claims 22-30 cited in Amendment A dated 9-8-03.

### ***Election/Restrictions***

3. Applicant's election with traverse of Species I, the first solvent is specifically defined, the second solvent is not cited and no additive that forms a SEI is included, claims 2, 4, 8-14, 16-17, 29 in Paper dated 12-8-03 is acknowledged. The traversal is on the ground(s) that there would not be a burden to search all the species. This is not found persuasive because there would be a burden because different art would need to be applied for Species II, claims 3-4, 8-13, 15, 25-28, 30, specifying specifically the second solvent, the first solvent is not cited and containing no additive to form an SEI as well as when the species defines either the first or second solvent and contains an additive that forms a SEI.

The requirement is still deemed proper and is therefore made FINAL.

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4. Claims 3, 5-7, 15, 18-28, 30 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper filed 12-8-03.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 2, 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Yoshimitsu et al. (JP 61-74258, abstract).

Yoshimitsu et al. teaches a battery comprising a positive electrode comprising a titanium disulfide, a negative electrode and an electrolyte comprising a solvent mixture of 4-methyl-1,3-dioxolane, 1,2-dimethoxyethane [*second solvent having a viscosity less than or equal to 1.3*] and hexamethyl-phosphoramide [*first solvent*] in a voluminal ratio of 60:34.8:5.2.

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7. Claims 4, 8-9, 11-13, 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Mao (5,879,834).

Mao teaches in column 9, lines 7-18, a battery comprising an electrolyte comprising ethylene carbonate *[first solvent, having a dielectric constant greater than or equal to 20]*, diethyl carbonate *[second solvent]* and ethyl methyl carbonate *[second solvent]* in a volume ratio EC/DEC/EMC of 30/20/50. Mao teaches in column 11, lines 56-58, that the electrolyte comprises LiPF<sub>6</sub>. Mao teaches in column 8, lines 19-22, that the electrolyte was a solution of 1M LiPF<sub>6</sub> salt in EC/DEC volume ratio of 30/70.

***Allowable Subject Matter***

8. Claim 10 is allowed.

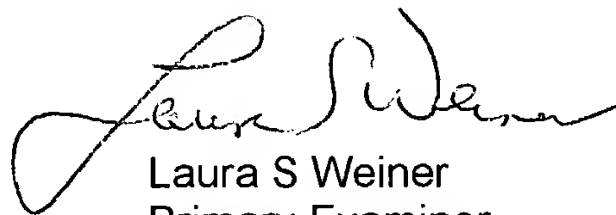
9. Claims 16-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura S Weiner whose telephone number is 571-272-1294. The examiner can normally be reached on M-F (6:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-1700.

A handwritten signature in black ink, appearing to read "Laura S. Weiner". The signature is fluid and cursive, with the first name "Laura" being more prominent than the last name "Weiner".

Laura S Weiner  
Primary Examiner  
Art Unit 1745

1-28-04